

Producing high-quality office documents with Plone

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About me

- working w/ Zope since 1999
- Zope 2 release manager
- Co-founder and 2nd chairman German Zope User Group (DZUG)
- Author of various software for Zope/Plone:
TextIndexNG 1-3, PloneCollectorNG, SQLAlchemyDA,
zopyx.convert, z3c.sqlalchemy
- CEO of ZOPYX Ltd. & Co. KG
- focused on e-publishing solutions (Python, Zope, Plone)

Plone has a
poor export story for
office formats

Available solutions for PDF

- htmdoc-based solutions:
 - Plone2PDF
 - htmdoc is fast but it sucks:
no CSS support, poor PDF quality
- Reportlab-based solutions
 - fast, good quality, not straight-forward

- No out-of-the-box solution for Plone available:
 - for generating PDF and other office formats (Word, RTF, Open-Office)
 - stylesheet support
 - configurable templates and content aggregation

SmartPrintNG

- exports Plone content to PDF, ODT, WML, RTF, DOCX
- per content-type configurable
 - content-aggregation
 - templates and styles
- works out-of-the-box with any content-type
- highly configurable and customizable

A quick demo...

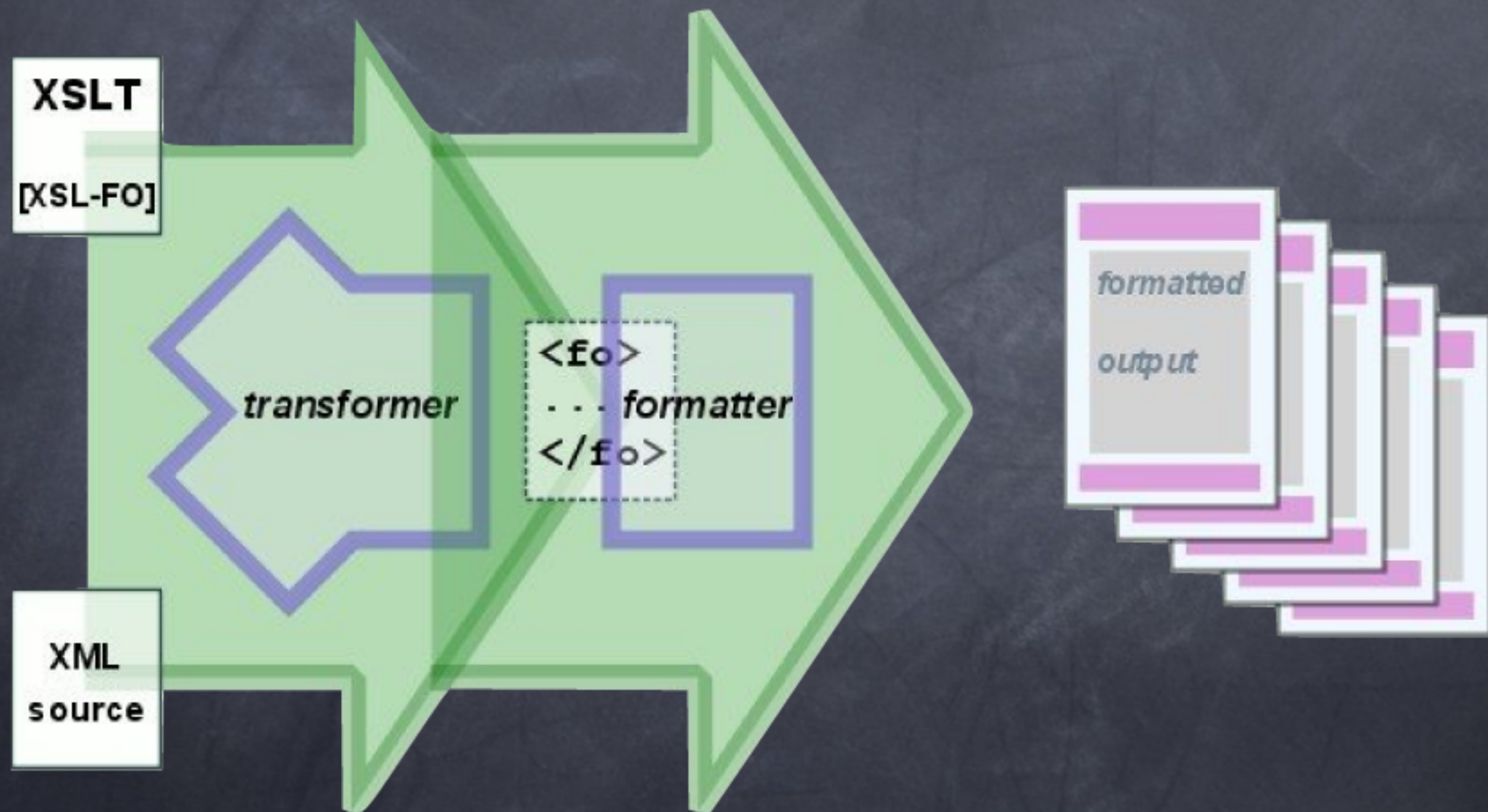
<http://smartprintng.zopyx.com>

A quick look under the hood of SmartPrintNG

A cross-format+platform solution

- Build on top of XSL-FO technology
- XSL-FO:
 - Extensible Stylesheet Language-Formatting Objects
 - a W3C recommendation
- consider it as a XML-ish typesetting system similar to T_EX
- much nicer output; supports hyphenation

XSL-FO



Historical background

- XSL-FO based approach in use for the Haufe iDesk platform
- iDesk: Zope 2-based cross-platform framework for content-retrieval applications
- in use since 2005
- deployed to more than 150.000 customers (means: 150.000 customers running Zope on their Windows desktop)

XSL-FO wants XML,
but we have only HTML!

All hail css2xslfo

- Input: XML/CSS2 or XHTML/CSS
- Output: XSL-FO document
- Java-based
- <http://www.re.be/>
- the „transformer“

From XSL-FO to PDF & friends

XSL-FO processors (the „formatters“)

- a XSL-FO processor converts a XSL-FO document to some output format
- XINC (www.lunasil.com):
 - Output format: PDF
- XFC (www.xmlmind.com):
 - Output formats: RTF, DOCX, WML, ODT

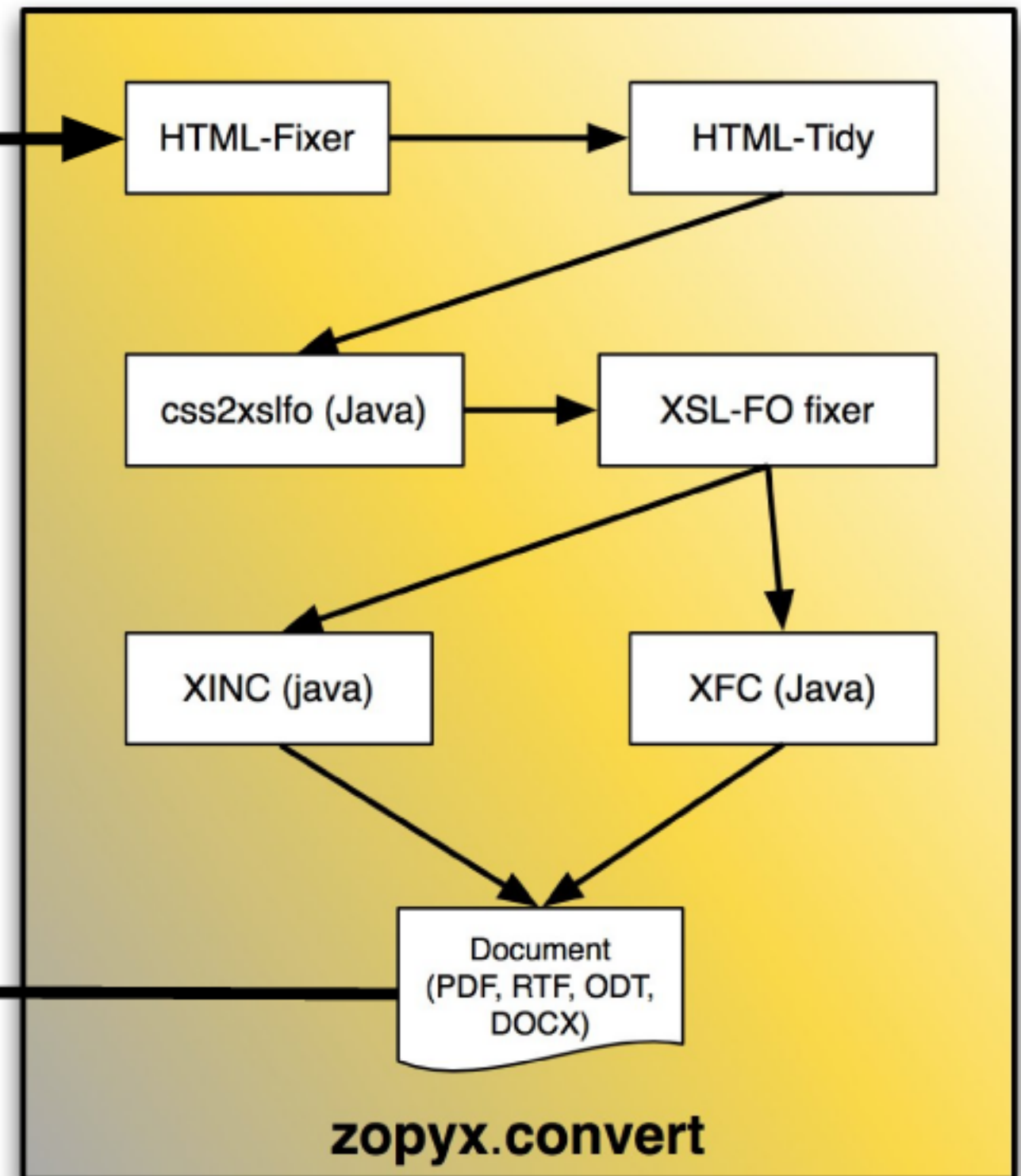
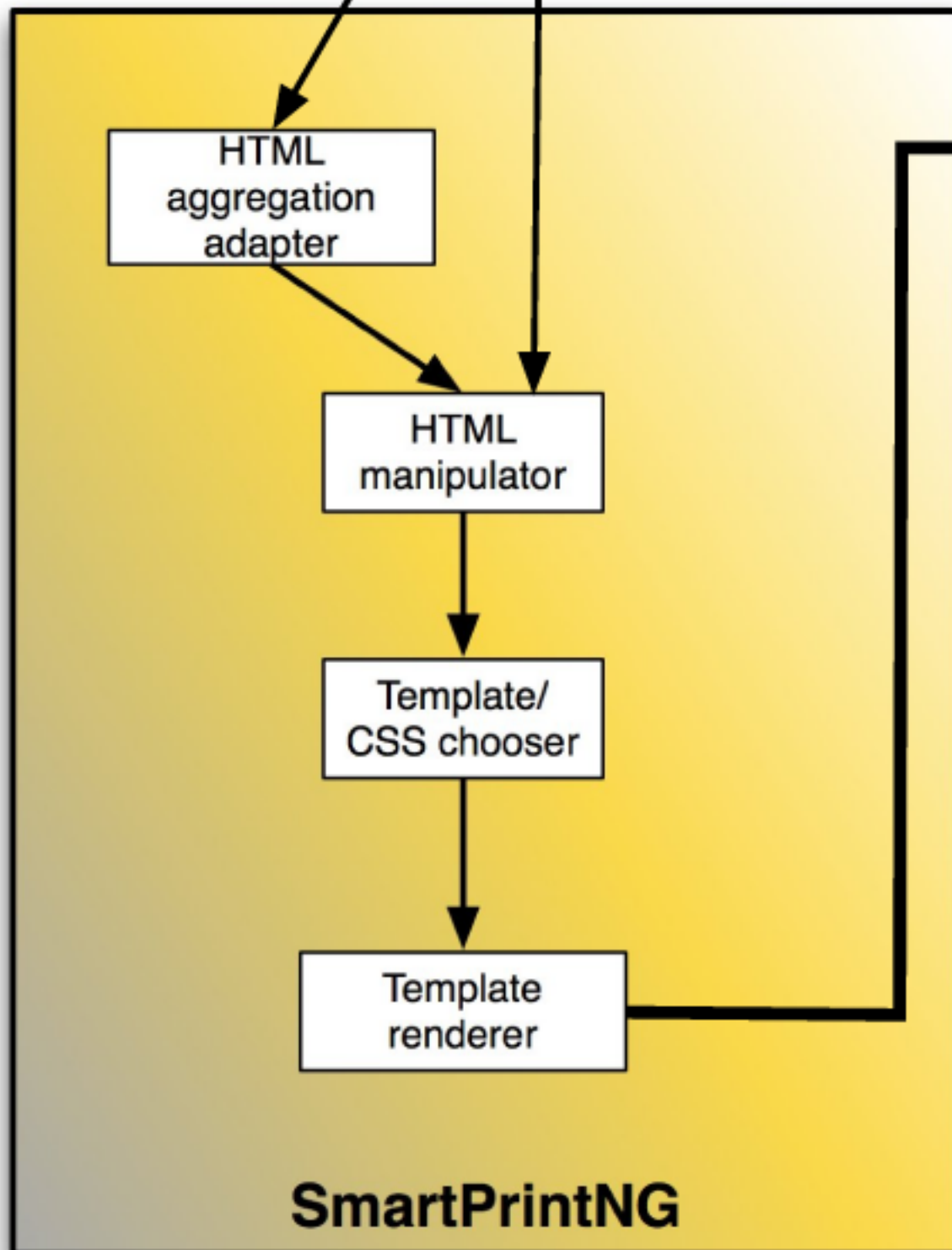
XSL-FO processors (2)

- **XFC** and **XINC**:

- Java-based → cross-plattform
- „it just works“ [tm]
- commercial :-(
 - but worth their money
 - other converter are even more expensive
- about 500-600 Euro/CPU core/server



Plone



Content-type specific configuration

ZCML:

```
<smartprinting:resourceDirectory
    interfaces="Products.ATContentTypes.interface.interfaces.IATDocument"
    directory="document"
/>
```

Filesystem:

```
> ls -la document
-rw----- 1 ajung users 540 Sep  5 18:53 Big.css
-rw----- 1 ajung users 515 Sep  5 18:52 StandardStylesheet.css
-rw----- 1 ajung users 820 Sep  5 18:50 StandardTemplate.pt
-rw----- 1 ajung users 617 Sep  5 17:34 default.fo_css
```

SmartPrintNG – more features

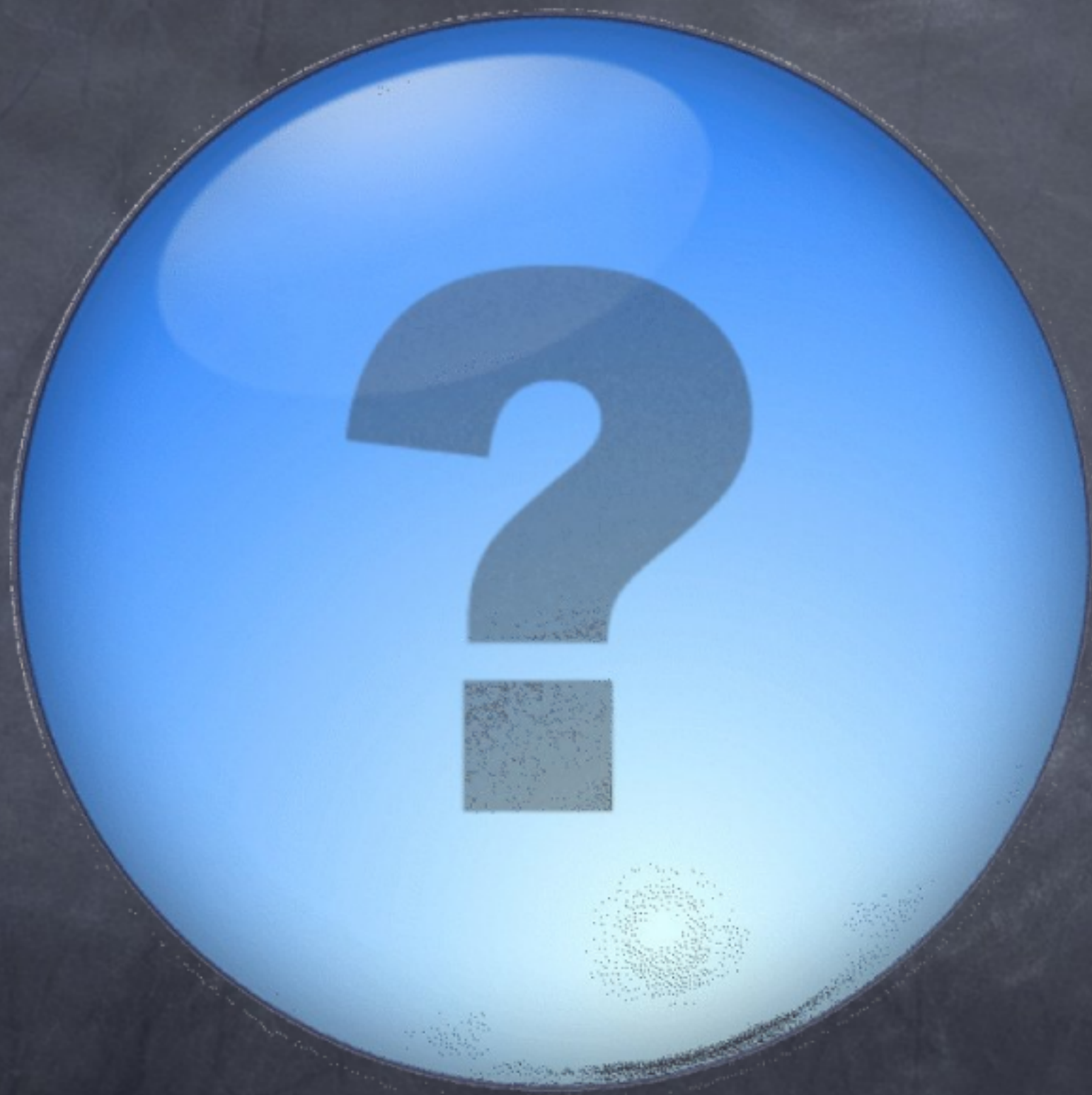
- configurable header & footer regions within HTML
- support for counters (e.g. page counters)
- conditional output for left and right pages
- multi-column support
- hyphenation support

Image support

- supports images inside Plone and external images
- converted internally to PNG
- open issues:
 - images resolution selection
 - fitting images into a fixed layout

zopyx.convert

- encapsulates the complete XSL-FO conversion logic
- wraps css2xslfo, XINC and XFC inside a Python Package
- Input: HTML
- Output: PDF, RTF, ODT, DOCX, WML
- available as egg – use it a non-Zope environment



THANK YOU



(Free) alternatives?

- Apache FOP processor:
 - old FOP 0.4 sucked like hell
 - new FOP 0.9.X sucks less, moving slowly
 - only PDF support
- Open-Office (server mode)
 - not stable enough
 - another **fat** dependency

SmartPrintNG Licensing

- Free for non-commercial use
 - educational institutions
 - NGOs
 - charity organizations
 - OSS projects
- commercial license in preparation for commercial usage (for buying an OEM license)